

MISCELLANEOUS STUDIES IN THE
COLEOPTERA NO. 2

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No. 1 of the present series appeared in the Canadian Entomologist, Vol. LIII, No. 6, June, 1921. The dermestid and melyriid described below constitute interesting additions to their respective families. The descriptions were drawn up several years ago and were intended to have been included in a larger faunal paper, the publication of which has been unavoidably delayed. On account of paratypes and specimens having been distributed under manuscript names it has become very important that the descriptions be published without further delay.

***Perimegatoma giffardi* Blaisdell, new species**

Form elongate oval. Color black with cinereous markings; pubescence nigro-piceous in the dark areas and plumbo-cinereous elsewhere; elytra with a transverse band of paler hairs behind the middle, legs piceous, antennæ rufo-piceous.

Pubescence soft, moderately dense and subdecumbent; sparse and cinereous on the head, with blackish hairs intermixed on the middle two-fourths of the pronotum, laterally becoming denser and entirely cinereous; in the basal area of the elytra a few erect hairs are seen, while in the lateral fifths the hairs are paler and in the central three-fifths they are intermixed with blackish hairs, the former predominating; there is a narrow band of pale hairs at junction of the anterior and middle thirds, another at about the junction of the apical and middle thirds, both widen laterally as they meet the lateral pale area, and also become narrower and distinctly whitish in the central area; the suture is narrowly bordered with similar whitish hairs, this sutural line broadens toward apex as it joins the lateral pale areas, thereby almost defining a subapical dark spot on each elytron. Centrally the hairs which border the pale bands are quite black, suggesting dark bands bordering pale fasciæ. Usually each elytron has three dark areas, a basal, a median or larger, and a small subapical one; sometimes there is a submarginal darker line in the posterior paler band where it passes into the lateral pale area. Occasionally there is seen a very feeble and narrow cinereous band extending across the pronotal disk at junction of the middle and basal thirds; a few whitish hairs are present on the basal lobe of the pronotum.

Head densely and evenly punctate. Frontal ocellus distinct. Pronotum coarsely and closely punctate, punctures circular, separated by a distance equal to one-half of their diameter, the intervals linear and ridge-like, each puncture bears a hair; sides convergent apically, feebly arcuate basally, more strongly arcuate anteriorly; base lobed at middle, lobe broadly triangular, more prominent posteriorly than the basal angles, the latter blunt and narrowly rounded; disk transversely impressed along the base, impression broadest opposite the lobe and angles.

Elytra less strongly punctured, punctures much smaller and separated by a distance equal to their diameter or one-half of the same. By extension of the pale markings the dark ones become reduced in size and even broken up; sometimes portions of the pale bands are narrowed allowing the dark areas to coalesce, so that quite often a large trapezoidal dark spot is formed across the suture at about the middle of the elytra. Body densely punctate beneath.

Male. Smaller and narrower; last joint of the antennal club apparently twice as long as the two preceding joints combined.

Female. Broader; antennal club abruptly formed, eighth joint but slightly larger than the preceding joints; eleventh about as long as the ninth and tenth taken together.

Measurements of types. Male: length, 3.5 mm.; width, 1.75 mm. Female: length, 4 mm.; width, 2 mm.

Type locality. Summit Station, Eldorado County, California.

Holotype, female, and allotype, male, to be deposited in the entomological collection of the California Academy of Sciences. Paratypes in the collection of the Sugar Planters' Association, Honolulu, Hawaii, and in the Academy's collection.

The above interesting dermestid belongs to the tribe Megatomini. In *giffardi* the basal joint of the hind tarsi is elongate, but little shorter than the next two combined; antennæ eleven-jointed in both sexes. The hypomera are indefinitely concave as usual, there being no antennal fossæ. The antennal club is three-jointed. The mesosternum between the coxæ is moderately narrow, longitudinally grooved and deeply emarginate posteriorly to receive the tip of the metasternal process; the anterior coxæ rather narrowly separated and the epipleuræ strongly defined; metacoxal lamina scarcely at all longer internally.

In *Perimegatoma monticola* Casey the body is black and almost evenly clothed with subdecumbent fulvous pubescence,

with narrow and scarcely noticeable zig-zag bands of more cinereous hairs. Elytral punctures stronger and closer.

In *giffardi* the body is black, unevenly clothed with plumbeous gray pubescence, with distinct transverse bands defining dark areas clothed with nigro-piceous hairs. Elytral punctures small and not deeply impressed. The pronotum throughout the genus is coarsely and very closely punctured. The species are difficult to identify on account of the meager descriptions and lack of mention of variations in color and markings.

A series of ten specimens was collected by Mr. Walter M. Giffard, on the summit of the Sierra Nevada Mountains, Eldorado County, California. I take great pleasure in naming the species after Mr. Giffard.

Trichochrous muiri Blaisdell, new species

Form elongate oblong-suboval and moderately convex. Color deep black; tibiae and tarsi more or less nigro-piceous, sometimes nigro-rufous. Surface rather polished and shining.

Head rather large, at least three-fourths as wide as the pronotum; frons broadly impressed, impression shallow, sparsely punctate, a feebly glabrous convexity at epistomal base, surface more or less rugulose. Eyes large and moderately prominent. Antennae stout and gradually incrassate, subserrate anteriorly.

Pubescence blackish for the greater part; shorter hairs of the elytra subdecumbent, brownish or paler in color; black hairs on the disk not erect, but becoming so laterally where they are longer and bristling; those of the head and pronotum longer and more or less irregularly directed. Lateral pronotal marginal cilia rather long, not forming a regular fringe, dark in color. Marginal elytral cilia erect and rather widely spaced, longer at the humeri and decreasing somewhat in length toward apex.

Pronotum transverse, about a third wider than long, apex arcuato-truncate; sides broadly and almost evenly arcuate, converging very moderately to apex, apical angles rounded; base broadly and evenly arcuate, basal angles broadly rounded, sides and base continuous without angulation; disk evenly and moderately convex, punctures moderate in size, sparse, separated by a distance equal to two to four times their diameter, closer toward apical and basal margins, becoming punctato-recticulate in lateral fifth.

Elytra oblong-oval, broadly rounded at apex, rather more than a half longer than wide; punctures rather coarse, separated by a distance equal to two or three times their diameter, smaller toward apex, surface finely rugulose.

Abdomen rather densely punctate; pubescence abundant and moderately long.

Male. Rather narrower and parallel. Antennæ stouter. Fifth ventral abdominal segment modified: apex quite deeply emarginate, bottom of the emargination transverse, adjacent surface of segment rather broadly but not very deeply impressed, floor of the impression, especially near the bottom of the emargination, glabrous and impunctate; beyond the impression the punctures are not denser. Sixth segment distinctly visible, filling in the interval between the lateral apical lobes of the fifth segment.

Female. Broader, sides more evidently arcuate; fifth ventral broadly rounded at apex.

Measurements. (Types) length, 3.5-4 mm.; width, 1.3-1.6 mm.

Type locality. Dublin Cañon, Alameda County, California.

Holotype, male, and allotype, female, to be deposited in the entomological collection of the California Academy of Sciences. Paratypes are also to be found in the collection of the Sugar Planters' Association, Honolulu, Hawaii. Eighteen specimens studied. Collector, Mr. Frederick Muir of Honolulu, Hawaii, to whom the species is dedicated.

Distinct from all other species described, except *sexualis* Casey. In the latter species the modification of the fifth ventral abdominal segment is more strongly marked. In *muiri* it is simpler.

Cœlosattus Blaisdell, new genus

The present opportunity is utilized to make known a remarkable eusattid that appears to be absolutely distinct from any species heretofore reported from America, north of Mexico. After careful review of the species listed in the *Biologia*, there appears to be but one course to pursue and that is to describe it as new, and to create a new genus for its reception, which is defined as follows:

Form broadly rounded, very convex and *Cœlus*-like in appearance, with a dense fringe of long fulvous hairs on the propleuræ and epipleuræ; apical and basal margins of the pronotum very densely fimbriate with shorter, even and similarly colored hairs; femora and sterna clothed with very long flying hairs of same color.

Epistoma deeply, broadly and arcuately sinuate, frontal suture distinct. Labrum rather deeply and triangularly sinuate, margin fringed with rather long fulvous hairs. Mentum rather deeply and arcuately sinuate at apex; ligula more deeply and abruptly sinuate, bottom of sinus arcuate. Eyes relatively small, elongate ovate, transverse and slightly oblique. Antennæ more *Cœlus*-like than *Eusattus*-like, mod-

erate in length and stoutness, somewhat compact and eleven-jointed; first joint elongate, curved, concealed beneath the sides of the head; club or four joints, feebly defined and moderately compressed, each joint transverse except the eleventh, the latter unevenly arcuate at apex, with sides and apex membranous and clothed with short sensory setæ, dorsal and ventral surfaces chitinous and glabrous.

Prothorax prolonged backward at the sides and enveloping the humeri; base broadly lobed. Prosternal process broad apically as in *Cælus*. Epipleuræ difficult of observation on account of the abundant pubescence, but apparently as in *Sphæriontis*; near apical third the elytral margin becomes gradually and narrowly explanate to apex; sides of elytra inflexed as in *Sphæriontis* and *Cælus*. Scutellum not visible.

Anterior tibiæ dilated as in certain species of *Hister*; lateral edge arcuate basally, sinuate apically before the moderately produced apical angle. Femora rather slender. Anterior tarsi slender, relatively small; first joint elongate, thickened apically, slender basally and nearly as long as the remaining four joints.

Middle tibiæ slender, rounded in section, slightly dilated at apex, rather strongly arcuate; tarsi slender and elongate, first joint elongate, as long as the third, fourth and fifth taken together, form same as that of the anterior tarsi. Hind tibiæ wider, more compressed, feebly arcuate; hind tarsi slightly less elongate than the middle, basal joint and relative length of joints as in middle tarsi.

Middle coxæ rather widely separated by the mesosternal intercoxal process, which is slightly impressed on the surface and arcuately sinuate at apex. Metasternum short. Abdominal intercoxal process triangular. First and second ventral abdominal sutures straight. Tibial spurs long, the inner about as long as the first tarsal joint.

Cœlosattus fortineri Blaisdell, new species

Color deep black, shining, about a third longer than wide. Head not wider than the pronotal apex, sides a little expanded, abruptly and strongly arcuate in front of the eyes, thence obliquely convergent to the oblique sutures where there is a small sinuation; epistomal lobes slightly arcuate with margin a little reflexed; surface rather narrowly impressed within the margin from the eyes to the median sinuation; frontal suture moderately impressed, epistomal surface less than moderately convex; front broadly and slightly convex, muricately and subtuberculately punctate, densely so about the eyes and on the vertex, less so centrally, where the interstitial surface is finely punctulate; surface almost impunctate about the epistomal sinus. Labrum punctate. Eyes but slightly visible from above, more or less concealed by the apical pronotal fimbria, twice as long as wide, narrowly rounded below, more broadly so above, facets not coarse. Antennæ with joints four to seven slightly wider than long, eight to ten about a third wider than long, third a little longer than wide.

Pronotum transverse, twice as wide as long, apex feebly sinuate in almost circular arc; base broadly and arcuately lobed in middle five-eighths, thence rather strongly sinuate to the posteriorly prominent basal angles, the latter obtuse at tip; sides less than moderately arcuate and not strongly convergent to the obtusely rounded apical angles; disk very feebly convex antero-posteriorly, evenly and moderately strongly convex from side to side to the narrowly impressed and somewhat explanate margins, the latter not strongly beaded; central area against the apical margin and nearly to the base, glabrous and impunctate, laterally and narrowly along the base more or less densely muricato-subtuberculately punctate, laterally the punctures bear fulvous hairs. Propleuræ punctate anteriorly in front of the coxæ, longitudinally rugose and glabrous posteriorly. Prosternum densely and muricately sculptured.

Elytra about as wide as long; humeri enveloped by the basal pronotal angles; disk strongly convex and very arcuately declivous posteriorly; sides quite broadly rounded, the inflexed portion more or less flattened; surface densely and muricately punctate on the disk, the tubercles much flattened, becoming subtuberculate laterally and on the apical declivity. Epipleuræ punctate and clothed with long fulvous hairs. Elytral margin at apex narrowly explanate.

Abdominal segments for the most part glabrous and impunctate, except first segment which is punctate laterally and on and about the intercoxal process; a few scattered punctures are seen at middle of the segments at apex, the fifth segment sparsely punctate. Metasternum glabrous about the abdominal process. Legs of moderate length and relatively slender.

Measurements. (Type) length, 12 mm.; width, 7.2 mm.

Type locality. Grey's Well, near Yuma, Imperial County, California. Collected by Mr. John C. Fortiner of Brawley, Imperial County, on November 25, 1926. I take pleasure in naming the species after the discoverer, who states that the "beetles were found in sand, four to six inches below the surface; no vegetation in the locality to speak of."

Type to be placed in the collection of the California Academy of Sciences. Paratypes in the author's collection and that of Mr. George Field, San Diego, California.

The above remarkable species at first glance closely resembles *Cælus grossus* Casey. It is generically distinct by the dilated and fossorial anterior tibiæ, slender legs and arcuate middle tibiæ, more widely separated middle coxæ and rather broad mesosternal intercoxal process. The long and abundant fulvous cilia and pubescence are striking characteristics.